

5(3)
AUTHORS:Levina, R. Ya., Baukh, I.,
Kaykaris, P. A., Treshchova, Ye. G.

SOV/79-29-9-29/76

TITLE:

Synthesis of Hydrocarbons.
LXXI. Synthesis of the Dineoalkyls $C_{12}H_{26}$ - $C_{14}H_{30}$

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 2945-2950
(USSR)

ABSTRACT:

The present paper deals with the synthesis of the dineoalkyls $C_{12}-C_{14}$ with a different position of the quaternary hydrocarbons in the chain, i.e. 3,3,6,6-tetramethyl alkanes and 4,4,7,7-tetramethyl decane (dineoheptyl) according to the method of synthesizing dineoalkyls recently developed by the authors (Ref 1) (by double Grignard-Wuertz reaction). The compounds (II) (10% yield), i.e. 2,5,5-trimethyl heptene-2 and 2,5,5-trimethyl octene-2 (Scheme 2) were obtained by the reaction of the primary hydrobromide of isoprene (I) with tertiary amyl- and, accordingly, tertiary hexyl magnesium chloride. The Raman spectra of the synthesized alkenes were characteristic of trisubstituted ethylenes. The 2,2,5-trimethyl heptene-2 was also obtained by partial catalytic hydrogenation of 2,5,5-trimethyl heptadiene-2,6. This diene hydrocarbon

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Synthesis of Hydrocarbons.**LXXI. Synthesis of the Dineoalkyls $C_{12}H_{26}$ - $C_{14}H_{30}$**

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contains the groups of the monosubstituted ($-CH=CH_2$) and trisubstituted ($>C=CH-$) ethylene, which according to S. V. Lebedev (Ref 2) ought to be hydrogenated at a different rate. The hydrogenation of this heptadiene in fact occurs according to scheme 3 at constant rate until two hydrogen atoms are added per 1 mol diene. Constants and Raman spectra of the alkene obtained corresponded to the constants and the Raman spectra of 2,5,5-trimethyl heptene-2 which was synthesized according to Grignard-Wuertz. By HCl the 2,5,5-trimethyl alkenes-2 (II) were then transformed into the saturated chlorides (III) (93 and 75% yield), which in turn were transformed into dineoalkyls (IV) (Scheme 4) by reaction with organomagnesium compounds in the presence of $HgCl_2$. These dineoalkyls were separated from the initial alkenes (50-55%) by fractional distillation. The yields of dineoalkyl purified by further distillation and chromatography on silica gel amounted to 10-32%, calculated for the tertiary chlorides (III) introduced into the Grignard-Wuertz reaction. Thus,

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LXXI. Synthesis of the Dineoalkyls $C_{12}H_{26}$ - $C_{14}H_{30}$

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3,3,6,6-tetramethyl octane and the hitherto unknown
3,3,6,6-trimethyl nonane, 2,3,3,6,6-pentamethyl octane,
and 4,4,7,7-tetramethyl decane were synthesized. There
are 2 tables and 9 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State
University)

SUBMITTED: July 17, 1958

Card 3/3

BAUKH, V.; FRIDMAN, S., inzh.

Using reedwork construction elements. Sil'. bud. 9 no.2:4-5 P '59.
(MIRA 12:6)

1. Nachal'nik seveta Shirayevskoy meshdukolchesnoy streitel'noy
organizatsii Odesskoy oblasti (for Baukh).
(Ukraine—Reed (Betany)) (Farm buildings)

S/058/61/000/010/082/100
A001/A101

AUTHORS: Mirzoyev, B.R., Baukin, I.S.

TITLE: Description of a special device for introducing probes into semiconductor materials

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 265, abstract 10E298
("Uch. zap. Azerb. un-t. Fiz.-matem. i khim. ser.", 1960, no.3, 71-73)

TEXT: The design of this device is based on the system of preparation-guides which makes it possible to direct the probe relative to the specimen and to introduce it into the desired region of the object with an accuracy of 0.1 mm. The probes are moved under the control of micrometers; they pass preliminarily through a special furnace maintaining the temperature of the probe at the level necessary for a free implantation of the probe into the specimen.

A. Zhdan

[Abstracter's note: Complete translation]

Card 1/1

3. Investigations of the solid solutions of the antimonides of indium
and gallium. I. S. Baukin, V. I. Ivanov-Omskiy, B. T. Kalomiyets.

Report presented at the 3rd National Conference on Semiconductor Compounds,
Kishinev, 16-21 Sept 1963.

ACCESSION NR: AP4041364

S/0048/64/028/006/1000/1001

AUTHOR: Baukin, I. S.; Ivanov-Omskiy, V. I.; Kolomiyets, B. T.

TITLE: Single crystals of indium antimonide-gallium antimonide alloy and their electrical properties

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 28, no. 6, 1964, 1000-1001

TOPIC TAGS: indium antimonide, gallium antimonide, antimonide alloy, alloy single crystal, single crystal property, electrical property

ABSTRACT: Single crystals of indium antimonide alloyed with small amounts [unspecified] of gallium antimonide have been grown by the zone-melting method using a single crystal seed. The two alloys prepared had lattice constants of 6.470 and 6.461 Å, respectively, and identical electron concentration ($3 \cdot 10^{15}$ e/cm³) and electron mobility (98,000 cm²/v.sec). The crystals were used to study optical absorption and reflection for wavelengths in the 6-25-μ range, and to determine the mechanism of the change of the forbidden zone width ΔE with changing alloy composition. The theoretically calculated ΔE in

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ACCESSION NR: AP4041364

the InSb lattice ($a = 6.48 \text{ \AA}$) compressed to the size of the alloy lattices (6.470 and 6.461 \AA) was $2.9 \cdot 10^{-2}$ for the first alloy and $5.7 \cdot 10^{-2} \text{ eV}$ for the second. The corresponding figures for ΔE determined experimentally (as the change of energy on the level of an absorption coefficient of 1000 cm^{-1}) were $8 \cdot 10^{-3}$ and $12 \cdot 10^{-3} \text{ eV}$, respectively. The great difference between the calculated and the experimental values of ΔE makes possible the conclusion that, even in the alloys with lattice parameters strongly dependent on the composition, the change in the width of the forbidden zone induced by a change in composition is primarily determined by the introduction of a new kind of atom into the lattice rather than by a change in the lattice parameters. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute, Academy of Sciences SSSR)

SUBMITTED: 00

ATD PRESS: 3052

ENCL: 00

SUB CODE: SS

NO REF Sov: 002

OTHER: 003

Card 2/2

BAUKIN, I.S.; GAVRILOV, N.I.; KOLOMIYETS, B.T.

Preparation of equilibrium solid solutions by slow crystallization of
the melt. Uch zap. AGU. Ser. fiz.-mat. nauk no. 2:99-103 '63.
(MIRA 18:1)

15SM-65 EEC(c)-2/EMI(c)/EMT(1)/EMT(m)/EMT(b)/T/EMT(t) PI-4/Pq-4 IJP(c)
JL/30

ACCESSION NR: APSC10755

08/0181/65/017/004/1261/1263

AUTHOR: Baukin, I. S.; Ivanov-Omskiy, V. I.; Kolosiyets, S. T.

TITLE: Dependence of the width of the forbidden zone on concentration
in alloys of InSb with GaSb

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 1261-1263

TOPIC TAGS: ²¹ ²¹ ²¹ forbidden zone width, ²¹ ²¹ ²¹ InSb GaSb alloy, optical transition energy

ABSTRACT: The optical properties of monocrystalline alloys of InSb with small additions of GaSb were investigated to determine the dependence of the width of the forbidden zone on the composition of the alloys. The width of the zone was determined from the dependence of the absorption coefficient on the energy. Transmission and reflection were measured on five p-type specimens having approximately equal concentrations of acceptors of the order of 10^{15} cm^{-3} in the wave range from 1 to 18μ . The lattice parameters of all the alloys were determined from x-ray surveys. The width of the forbidden band for alloys with different composition were compared at the same

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L 45644-65

ACCESSION NR: AP5010755

absorption coefficient. From the dependences of the energy of absorbed photons on the lattice parameters of the alloy (for four different absorption levels) it was shown that for small absorption coefficients the dependence was practically linear in the investigated range; however, with an increase in the absorption coefficient, the dependence becomes nonlinear. The change in width of the forbidden band cannot be explained on the basis of experimental data, although from the different shapes of the curves for different absorption coefficients it can be seen that the difference in the energies of optical transitions for the respective absorption coefficients increase with an increased GaSb content in the alloy. This is attributed to the fact that the change of the zone edges with respect to the composition of the alloy is slower than the change of the energy levels in the zone depth. Orig. art. has: 1 figure. [JA]

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. P. Ioffe,
AN SSSR, Leningrad (Physicotactical Institute, AN SSSR)

SUBMITTED: 21 Nov 64
NO REF Sov: 002

ENCL: 00
OTHER: 003

SUB CODE: SB, DP
ATD PRESS: 324

Card 212 mb

L 62784-65 EWT(n)/T/EWP(t)/EWP(b)/EWA(c) JD
ACCESSION NR: A75016033

UR/9033/63/000/002/0099/0103

AUTHOR: Baukin, I. S.; Gavrilov, N. I.; Kolomiets, B. T.

TITLE: Production of equilibrium solid solutions by slow crystallization of the melt. Bf1

SOURCE: Baku. Azerbaydzhanskiy gosudarstvennyy universitet. Uchenyye zapiski. Seriya fiziko-matematicheskikh nauk, no. 2, 1963, 99-103.

TOPIC TAGS: solid solution, phase equilibrium, crystallization, crystal growth, x-ray diffraction analysis

ABSTRACT: The article describes the equipment which was developed for the production of equilibrium solid solutions by slow crystallization from the melt. The equipment is applicable even for those compounds which undergo decomposition during melting. The measuring apparatus of the set-up enables one to obtain rough concepts of the phase diagram of the investigated alloys by observing the heating or cooling curves. During slow crystallization the growing crystals are most of the time at a temperature which exceeds the solidus temperature and are in contact with the melt, in which the rate of diffusion is much greater than in the solid. Under

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ACCESSION NR: AT5018033

these conditions the equilibrium between the solid and the liquid phase establishes much more rapidly than during annealing of the solid alloy. Thus, using a reasonably slow rate of cooling it is possible to conduct crystallization under conditions which are close to equilibrium. The lower the rate of cooling and the starting mass of alloy and the greater the diffusion coefficients of the alloy components, the closer are the crystallization conditions to equilibrium. The samples were heated in the TG-3 furnace in evacuated quartz ampules. The lower part of the ampules was recessed to permit the placement of ordinary and differential (DT) chromel-alumel thermocouples. The ampules with specimens (A) and with standard substance (A_{std}) and thermocouples were mounted on the furnace cover (K) (Fig. 1 of the Enclosure). To produce a more uniform temperature in the cavity of the furnace, a nickel cylinder (L) was placed inside the cavity. The article describes the circuits which are used to heat the furnace and to control the rate of cooling. The developed equipment was used for study of the equilibrium solid solutions in the $Sb_2Sc_3-Sb_2Te_3$ system. InSb was used as standard material. Eleven compounds were crystallized. The rate of cooling was 0.3 deg/hr. X-ray diffraction studies indicated that the solid solution contains in excess of 40 mole % Sb_2Te_3 and binary compounds were obtained as single crystals. Alloy containing less than 40 mole % Sb_2Te_3 were always polycrystalline and microstructural analysis indicated that they

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L 62784-65

ACCESSION NR: AT5018033

consist of two phases. "The authors express their gratitude to V. I. Ivanov-Oskiy for a number of valuable suggestions." Orig. art. has: 4 figures.

ASSOCIATION: Azerbaydzhanskiy gosudarstvennyy universitet (Azerbaijhan State University)

SUBMITTED: 00

ENCL: 01

SUB CODE: MM

NO RET Sov: 001

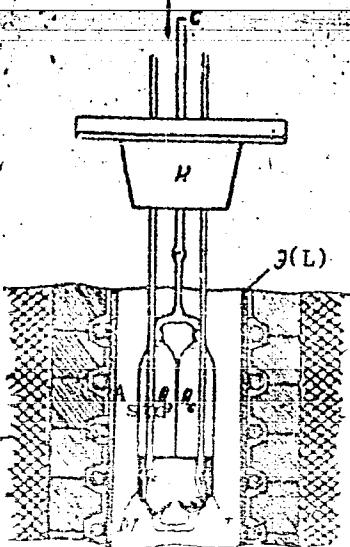
OTHER: 001

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ACCESSION NR: AT5018033

ENCLOSURE 01



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Fig. 1. Placement of ampules and thermocouples in the cavity of the furnace.

A--ampule with unknown; A^{std}--ampule with standard material;
T--chromel-alumel thermocouple;
DT--differential thermocouple;
L--nickel lining; K--cover;
e--quartz rod used to conduct oscillations to the ampules.

ACC NR: AR6032309

SOURCE CODE: UR/0081/66/000/010/B061/B061

AUTHOR: Baukin, I. S.; Kolomiyets, B. T.TITLE: The effect of planes of orientation of the seeding on the growth of single
crystals of alloys indium antimonide with gallium antimonide4
7 27 27
SOURCE: Ref. zh. Khimiya, Part I, Abs. 10B426REF SOURCE: Uch. zap. Azerb. un-t. Ser. fiz.-matem. n., no. 4, 1964,
97-99

TOPIC TAGS: single crystal, growth, crystal growth, indium antimonide

ABSTRACT: A study has been made of the effect of flatness of orientation of the
seeding on the growth of single crystals of InSb with small additions of GaSb grown
by the zone growing method. The planes of (111) and (i¹i¹) of the seeding agent
were first polished and etched in a dilute etching agent CR-4. It was found that
single crystals grown with an initiator, oriented towards the melt with the plane
(111), contained twin crystals, while those with the plane (i¹i¹) had no twin
crystals. The obtained single crystals exhibited electron conductivity; the con-
centration of the carrier is $3 \cdot 10^{15} \text{ cm}^{-3}$, the mobility of the carrier is 100,000

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ACC NR: AR6032309

$\text{cm}^2/\text{v}\cdot\text{sec}$ and the electron conductivity is $138 \text{ ohm}^{-1}\text{cm}^{-1}$ (at $\sim 20^\circ\text{C}$).
V. Grishin. [Translation of abstract]

SUB CODE: 07/

Card 2/2

BAUKIN, L. I.

"Medical Service at an Infantry Regiment in USA", Military-Medical Journal,
No. 8, p 91, 1955.

BAUKIN, L.I., gvardii podpolkovnik meditsinskoy sluzhby

Medical service of the infantry division of the U.S.Army. Voen.-
med. zhur. no.4:83-88 Ap '56. (MLRA 9:9)
(U.S.ARMY--MEDICAL AND SANITARY AFFAIRS)

BAUKIN, L.I., gvardii podpolkovnik meditsinskoy sluzhby

Medical services of airborne forces of the U.S.A. Voen.-med.zhur.
no.9:93-95 S '56.

(MIRA 10:3)

(UNITED STATES--ARMY--AIRBORNE TROOPS)
(UNITED STATES--MEDICINE, MILITARY)

BAUKIN, L.I., gvardii podpolkovnik med. sluzhby; ROZHKOV, And. T., polkovnik med. sluzhby; KHOLMANSKIY, N.S., polkovnik med. sluzhby.

Some aspects of the organization of medical services of a field army of the United States. Voen. med. zhur. no.4:91-96 Ap '57. (MIRA 12:7)
(MEDICINE, MILITARY AND NAVAL,
organiz. in US (Rus))

17(8)

SOV/177-58-11-23/50

AUTHORS: Baukin, L.I., Guards Lieutenant-Colonel of the Medical Corps, Komin, N.I., Engineer-Lieutenant-Colonel, and Vezno, K.P., Lieutenant-Colonel of the Medical Corps

TITLE: The Protection of Blood, Bacterial Preparations and Drugs From the Influence of Low and High Temperatures

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 11, pp 68 - 71 (USSR)

ABSTRACT: The authors criticize the insufficiency of various methods and containers for protecting blood, drugs and bacterial preparations from the influence of low and high temperatures, including the small isothermal boxes of the TSIPK (Central Blood Transfusion Institute), the boxes for blood transfusion of the Ivanovo and Kazan' stations etc., used during WW II. Since 1957, the Medical Corps uses the TK-1 thermo-insulating container (Figure 1) developed by the Tsentral'nyy nauchno-issledovatel'skiy ispytatel'nyy

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SOV/177-58-11-23/50

The Protection of Blood, Bacterial Preparations and Drugs From the Influence of Low and High Temperatures

institut voyennoy meditsiny (Central Scientific-research and Test Institute for Military Medicine) and TK-2 (Figure 2), designed by the Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promshlennosti (VNIKhI) (All-Union Scientific-Research Institute for the Refrigeratory Industry). Container TK-1 measures 140 x 427 x 555 mm, TK-2 724 x 491 x 506 mm. Both containers are described in detail. The basic technical data of the containers are given in a table. The containers are intended for preservation and transportation of blood, bacterial preparations and drugs. Figures 4 and 5 show a graph of the heat regime inside the thermoinsulating TK-1 container during tests in refrigerating chambers and at a temperature of +35°. The TK-2 container

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BAUKIN, L.I., gvardii podpolkovnik med. sluzhby

Organization of medical service for a combat group in an American
infantry division. Voen.-med. zhur. no. 2:88-92 F '61.

(MIRA 14:2)

(UNITED STATES—MEDICINE, MILITARY)

Bulgaria/Military

B-554

BAUKIN, L. I., Podpolkovnik/Med Serv; author of an article entitled "Concerning the Problem of Medical Service and Combat Group Organization in the American Infantry Division." (Voenno Meditsinsko Delo, Sofia, May 61, pp 86-90)

²⁴
(1)

BAUKIN, L.I., g^{uardii} podpolkovnik meditsinskoy sluzhby

New data on the organization and tactics of the medical
service in a combat group of an American infantry division.
Voen.-med. zhur. no.11:88-92 N '61. (MIRA 15:6)
(UNITED STATES--MEDICINE, MILITARY)

17(10)

SOV/177-58-5-9/30

AUTHORS:

Kushakovskiy, M.S., Major of the Medical Corps,
Baukin, V.N., Captain of the Medical Corps

TITLE:

Affections of the Myocardium in Certain Virus Diseases
(O porazheniyakh miokarda pri nekotorykh virusnykh
zabolevaniyakh)

PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 5, pp 44-48
(USSR)

ABSTRACT:

The article deals with affections of the myocardium in certain virus diseases. According to Chepil and Kosman, virus myocarditis occurs more frequently than is diagnosed. The authors observed some cases of myocarditis developed on the background of virus hepatitis (Botkin's disease), influenza and influenzal pneumonia. Careful clinical examinations revealed symptoms of an affection of the myocardium with the character of an inflammation process although the clinical appearances of acute myocarditis were very poor. Bengtsson and Birk recognized infectious

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SOV/177-58-5-9/30

Affections of the Myocardium in Certain Virus Diseases

myocarditis in 15% of cases only by electrocardiogram, in 30% by systolic murmur and tachycardia, and in 30% of cases by high figures of the erythrocytes sedimentation reaction. In less pronounced forms of the disease, the entire symptom complex characteristic of myocarditis cannot be detected. Chepil and Kosman have proved that many forms of myocarditis take their course without increasing the number of leucocytes in the peripheral blood. The authors finish the article by stressing the importance of electrocardiographic examination, which makes it possible to distinguish secondary dystrophies from true inflammation processes in the myocardium. There are 2 sets of electrocardiograms.

Card 2/2

Atmos., T.

Hydroelectric Power Stations

Kuybyshev hydroelectric system today, Tekh. zhurn. 20, no. 4, 1952.

BAUKOV, K.

Corrosion (12102)

Zhil.-kom. Khog-vo, No 3, 1953, pp 19-21

BAUKOV, K. and IZUMSKIY, N.

"Detection of Brittle Deterioration in Boilers and Their Restoration"

Describes some of the signs to look for to determine the early stages of brittle deterioration caused by local weaknesses in the boiler and by high concentrations of NaOH.

SO: Referativnyy Zhurnal--Khimiya, No 1, 1 Jan 54; SO: (W-30785, 28 July 1954.)

BALKOV, S.S.

The specific gravity of Baltic oil shales - S. S. Becker,

Transl. Acad. Nauk Eston. SSSR, No. 1, 65-70 (1955). -
The ratio of specific shale and limestone to the organic matter found to be a constant factor of the percentage of organic matter in the shale. The ratio of specific shale to organic matter is 1.02, i.e., the specific shale has a density of 1.124. The relation between specific shale and limestone as proof for the regularity in the mineralogic composition which indicates the existence of a rule governing the formation of sedimentary rocks. Oil shales contain 3 components, organic matter, limestone, and clays, which are present in a definite quantitative proportion, varying from one stratum to the next.

15-57-10-14452

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p 180 (USSR)

AUTHOR: Baukov, S. S.

TITLE: The Geotectonic Environment of Shale Accumulation
(Geotektonicheskiye usloviya slantsenakopleniya)

PERIODICAL: Tr. In-ta geol. AN EstSSR, 1956, Nr 1, pp 95-104

ABSTRACT: The formation of the shale beds in the Middle-Ordovician Kukruseskiy horizon of the Baltic shale basin and of the upper Volga series of the Upper Jurassic Volga-Pechersk subgeosyncline occurred in flat, shallow marine basins under conditions of fluctuating movements of the earth's crust at the end of transgressive stages. This conclusion is confirmed by general geological analysis and, in particular, by the structure of the shale beds, in which there occurs a characteristic sharp interformational break, commonly

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The Geotectonic Environment of Shale (Cont.)

15-57-10-14452

accompanied by erosion. The accumulation of initial organic substance in the shales ceases when normal marine conditions, favoring the deposition of carbonate muds, appear in the basin. In this regard, it is believed that carbonate rocks generally overlie beds of oil shales.

Card 2/2

V. P. Kozlov

ORVIKU, K., akademik; BAUK, V. S.S. kand. geol.-miner. nauk,
red. vypuska; KAL'0, D.L. [Kaljo, D.], kand. geol.-
miner. nauk, red.; MYANNIL', R.M. [Mönnil, R.], kand.
geol.-miner. nauk, red.; PAL'MRE, Kh.G. [Palmre, H.],
kand. geol.-miner. nauk, red.

[Lithology of Paleozoic sediments in Estonia] Litolo-
giia paleozoiskikh otlozhenii Estonii. Tallin, AN
Estonskoi SSR, 1964. 131 p. (MIRA 18:1)

1. Eesti NSV Teaduste Akadeemia Geoloogia Instituut.
2. Akademiya nauk Estonskoy SSR (for Orviku).

BAUKOV, S.S.

Studies on the processing and use of shale-kukkersite from
the time of N.F. Pogrebov to the present day. Inform.sbor.
VSEGEI no.48:95-104 '61. (MIRA 15:7)
(Shale)

NESTOR, Kheldur Eduardovich; KAL'0, D.L.[Kaljo, D.], red.; ORVIKU, K.K., akademik, red.; BAUKOV, S.S., kand. geol. nauk, red.; MYANIL', R.M.[Männil, R.], kand. geol. nauk, red.; PAL'MRE, Kh.G. [Palmre, H.], kand. geol. nauk, red.; SKVORTSOVA, A., red.

[Ordovician and Llandoveryian Stromatoporoidea of Estonia]
Stromatoporoidei ordovika i llandoveryi Estonii. Tallinn,
In-t geol. AN Estonskoi SSR, 1964. 111 p.

(MIRA 18:5)

1. Akademiya nauk Estonskoy SSR (for Orviku).

ORVIKU, K.I., akademik, red.; BAUKOV, S.S., kand. geol.-miner.
nauk, red.; KAL'0, D.L. [Kaljo, D.], kand. geol.-miner,
nauk, red.; MYANNIL', R.M. [Männil, R.], kand. geol.-
miner. nauk, red.; PAL'MRE, Kh.G. [Palmre, H.], kand.
geol.-miner. nauk, red.; SKVORTSOVA, A., red.

[Lithology and stratigraphy of Quaternary sediments in
Estonia; for the 7th Congress of the International
Association on Quaternary Research held in the U.S.A.,
1965]. Litologija i stratigrafiia chetvertichnykh otlo-
zhenii Estonii; k VII Mezhdunarodnomu kongressu INKVA v
SShA, 1965. Tallinn, 1965. 147 p. (MIRA 19:1)

1. Eesti NSV Teaduste Akadeemia. Geoloogia instituut.
2. Akademiya nauk Estonskoy SSR (for Orviku).

BAUKOV, V. (g.Kalinin)

Lubricating the M-1200 motor-operated pump under cold weather
conditions. Poch.delo 4 no.11:19 N '58. (MIRA 11:12)

(Lubrication and lubricants)
(Pumping machinery--Cold weather operation)

BAUKOV, V.A.

In connection with the article "Improve the work relative to inventions and more efficient operation." Sakh.prom.30 no.11:4 N '56.
(MLRA 10:2)

1. Ertil'skaya MDM.
(Sugar industry)

87406

S/020/60/135/006/022/037
B016/B060

53700

AUTHORS: Perevalova, E. G., Yur'yeva, L. P., and Baukov, Yu. I.

TITLE: Direct Cyanation of Ferricinium Salts

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6,
pp. 1402-1405

TEXT: The authors report on the substitution of hydrogen atoms in ferricinium ferrichloride and ferricinium ferribromide. As had been expected, the ferricinium cation was passive in the electrophilic substitution, since the positive charge, no matter whether localized on the iron atom or distributed over the whole molecule, prevents electrophilic attacks. Thus the authors did not succeed in performing any electrophilic substitution in ferricinium. They therefore attempted nucleophilic substitution. Notable yields (over 50%) of nitrile of the ferrocene carbon were obtained when using the solution of liquid HCN in anhydrous xyllic acid. A yield over 80% was obtained when ferricinium salt was replaced by a mixture of ferrocene and anhydrous FeCl_3 . By this method one may also obtain the hitherto undescribed nitriles of substituted

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Direct Cyanation of Ferricinium Salts

87406
S/020/60/135/006/022/037
B016/B060

(methyl- and ethyl-) ferrocene carboxylic acids. It was observed from the infrared spectra of these nitriles that they contain a nonsubstituted cyclopentadienyl ring. It was concluded that the nitrile group enters such a ring as contains an electron donor substituent. A nonsubstituted cyclopentadienyl ring was missing in the other two compounds produced by the authors: in nitrile of heteroannular chloro ferrocene carboxylic acid and in dinitrile of heteroannular ferrocene dicarboxylic acid. This was spectroscopically confirmed (Ref. 14). Electron acceptor substituents (Cl, CN) are therefore believed to render the cyanation of the cyclopentadienyl ring with which they are linked more difficult; the CN group enters the free ring. The authors doubt their original assumption of the ferricinium cation being capable of a nucleophilic substitution, since the effect of electron donor and electron acceptor substituents was found to be as strong as in the electrophilic substitution. The material yielded by their experiments is regarded as being insufficient to establish the reaction mechanism. The only certain fact is that the reaction does not begin by an attack of the CN anion against one of the carbon atoms of the cyclopentadienyl rings. Two assumptions are put forth concerning the reaction mechanism: 1) a bond is formed first between the CN anion and the iron

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Direct Cyanation of Ferricinium Salts

S/020/60/135/006/022/037
B016/B060

atom of the ferricinium cation, and the proton then attacks one of the hydrogen atoms of the cyclopentadienyl rings. This hydrogen is split off as a hydride compound and may be used up for the reduction of the ferricinium cation, while CN binds with the carbon atom of the cyclopentadienyl ring. Possibly, all these stages take place simultaneously within one single reaction complex (or a cyclic transitional stage). 2) There occurs a specific electrophilic (or homolytic) substitution, and ferrocene and CN^+ cation (or CN^\bullet radical) are involved in the reaction. In this case, the role of the ferricinium cation (or of $FeCl_3$) would consist in the transformation of the CN anion into a cation (or into a radical). L. A. Kazitsyna is thanked for having taken the spectra. A paper by Ye. M. Shustorovich and M. Ye. Dyatkina is mentioned (Ref. 8). There are 17 references: 10 Soviet, 4 US, 1 German, and 2 British.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

Card 3/4

87406

Direct Cyanation of Ferricinium Salts

S/020/60/135/006/022/037
B016/B060

PRESENTED: July 12, 1960, by A. N. Nesmeyanov, Academician

SUBMITTED: June 29, 1960

Card 4/4

L 16673-65 EWT(m)/EPF(c)/EWP(j) Po-4/Pr-4 EGD(gs)/SSD/AFWL RM
ACCESSION NR: AP4047651 S/0079/64/034/010/3453/3456

AUTHOR: Baukov, Yu. I.; Lutsenko, I. F.

3

7

TITLE: Esters of metal-containing carboxylic acids. Esters of dialkylgermanyl-bis- and dialkylgermanyl-acetic acids

SOURCE: Zhurnal obshchey khimii, v. 34, no. 10, 1964, 3453-3456

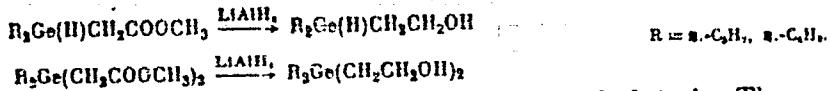
TOPIC TAGS: germanium, carboxylic acid, organogermanyl compound

ABSTRACT: Dialkylgermanylbis acetic acid (I) and dialkylgermanylacetic acid (II) were formed by exchange reactions between esters of mercuribisacetic acid (III) and alkylgermanyl hydrides, depending on the reactant ratios: ($R = n\text{-}C_3H_7$, and $n\text{-}C_4H_9$) $R_2\text{GeH}_2 + \text{Hg}(\text{CH}_2\text{COOCH}_3)_2 \longrightarrow R_2\text{Ge}(\text{H})\text{CH}_2\text{COOCH}_3 + \text{Hg}^+ \text{CH}_3\text{COOCH}_3$; $R_2\text{GeH}_2 + 2\text{Hg}(\text{CH}_2\text{COOCH}_3)_2 \longrightarrow R_2\text{Ge}(\text{CH}_2\text{COOCH}_3)_2 + 2\text{CH}_3\text{COOCH}_3$. Reaction of equimolar amounts of III with dialkylgermanyl iodide resulted in II: $(n\text{-}C_3H_7)_2\text{GeI}_2 + \text{Hg}(\text{CH}_2\text{COOCH}_3)_2 \longrightarrow (n\text{-}C_3H_7)_2\text{Ge}(\text{CH}_2\text{COOCH}_3)_2 + \text{HgI}_2$.

Card 1/2

L 16673-65
ACCESSION NR: AP4047651

Reduction of I or II with lithium aluminum hydride resulted in the corresponding germanium-containing glycols and alcohols:



The physical constants of all the products are tabulated. The compound structures were confirmed by IR spectroscopy. "The experimental work was conducted with the participation of students I. I. Bocharov and B. N. Khasapov." Orig. art. has: 5 equations and 1 table

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova (Moscow State University)

SUBMITTED: 29Jul63

ENCL: 00

SUB CODE: OC

NO REF SOV: 002 OTHER: 003

Card 2/2

BAUKOV, Yu.I.; BURLACHENKO, G.S.; LUTSENKO, I.F.

Rearrangement of α -trialkylsiloxyvinylalkyl esters to
trialkylsilylacetic acid esters. Dokl. AN SSSR 157 no.1:
119-121 J1 '64 (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavлено академиком A.N. Nesmeyanovym.

BAUKOV, Yu.I.; LUTSENKO, I.F.

Esters of trialkylgermylacetate acid. Zhur. ob. khim. 32 no.8:2746-
2747 Ag '62. (MIRA 15:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Acetic acid) (Germanium compounds)

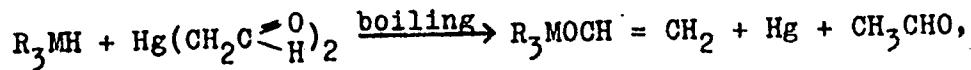
S/079/62/032/011/012/012
D204/D307

AUTHORS: Baukov, Yu.I., and Lutsenko, I.F.

TITLE: Synthesis of vinyloxysilanes and their germanium analogs

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 11, 1962,
3838 - 3839

TEXT: Triethylvinyloxysilane (A), tripropylvinyloxygermane (B) and tributylvinyloxygermane (C) were prepared, in 54, 60 and 54 % yields respectively by the reaction



where M is Si or Ge. Intense ir absorption bands corresponding to the C-C bond were observed, at 1640 cm^{-1} for A 1618 cm^{-1} for B and 1616 cm^{-1} for C. A medium-intensity 1700 cm^{-1} band was also observed for B and C, indicating the presence of isomers containing the $-CHO$ group. The b.p's refractive indices (n_D^{20}) and densities

Card 1/2

Synthesis of vinyloxysilanes ...

S/079/62/032/011/012/012
D204/D307

(d₄²⁰) were respectively: A-52-54⁰C/20 mm Hg, 14260, 0.8274; B-88-91⁰C/7 mm Hg, 1.4565, 1.0177; C-86.5-90⁰C/1 mm Hg, 1.4580, 0.9879.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: July 23, 1962

Card 2/2

LUTSENKO, I.F.; BAUKOV, Yu.I.; KHASAPOV, B.N.

Esters of α -metallated carboxylic acids. Preparation of esters
of trialkylstannyl- and trialkylgermany lacetic acid from esters
of mercuri-bis-acetic acid. Zhur. ob. khim. 33 no.8:2724-
2727 Ag '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

PONOMAREV, S. V.; BAUKOV, Yu. I.; LUTSENKO, I. F.;

Esters of α -metalated carboxylic acids. Esters of dialkyltannyl-
bisacetic acid. Zhur. ob. Khim. 34 no.6:1938-1940 Je '64.
(MIRA L/;7)

1. Moskovskiy gosudarstvennyy universitet imeni lomonosova.

BAUKOV, Yu.I.; BURLACHENKO, G.S.; LUTENKO, I.F.

Synthesis of O-silyl-substituted enols and related compounds.

Zhur. ob. khim. 35 no.4:757-758 Ap '65.

(MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.

BURLACHENKO, G.S.; BAUKOV, Yu.I.; LUTSENKO, I.F.

Properties of O-(trialkylsilyl)-O-methyl ketene acetals. Thermal decomposition and reaction with ketene. Zhur. ob. khim. 35 no.5: 933-934 My '65. (MIRA 18:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

BAUKOV, Yu.I.; BELAVIN, I.Yu.; LUTSENKO, I.F.

Study of O- and C-organometallic isomers. Part 1: Reaction
of dialkylhalogermanes and dialkylochlorostannanes with esters
of mercury bisacetic acid. Zhur. ob. khim. 35 no.6:1092-
1094 Je '65. (MIRA 18:6)

BAUKOV, Yu.I.; BURLACHENKO, G.S.; LUTSENKO, I.F.

Study of O- and C- organometallic compounds. Part 2: Production
and reaction of trialkylsilyl- and trialkylgermanylacetic acid
esters. Zhur. ob. khim. 35 no.7:1173-1177 Jl '65.
(MIRA 18:8)

BURLACHENKO, G.S.; AVDEYEVA, V.I.; BAUKOV, Yu.I.; LUFSENKO, I.F.

Reaction of alkoxytrichlorogermanes with ketene. Zhur. ob.
khim. 35 no.10:1881 O '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

PETROVSKAYA, L.I.; BURLACHENKO, G.S.; FEDIN, E.I.; BAUKOV, Yu.I.;
LUTSENKO, I.F.

Proton magnetic resonance of esters of metalated (Si, Ge, Sn)
acetic acid and O-silyl-O-alkylketene acetals. Zhur.strukt.khim.
6 no.5:781-783 S-0 '65. (MIRA 18:12)

1. Institut elementoorganicheskikh soyedineniy AN SSSR i
Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
Submitted April 29, 1965.

L 31796-66 EWT(s)/SHF(j) RM
ACC NR. AP6021697

SOURCE CODE: UR/0079/66/036/003/0512/0518

AUTHOR: Burlachenko, G. S.; Khasapov, B. N.; Petrovskaya, L. I.; Baukov, Yu. I.;
Lutsonko, T. F.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet) 62 6

TITLE: Investigation in the field of O- and C-heteroorganic isomers. IV. Reaction of chlorosilanes with esters of trialkylstannylacetic acid 1

SOURCE: Zhurnal obshchoy khimii, v. 36, no. 3, 1966, 512-518

TOPIC TAGS: isomer, ester, acetic acid, chemical reaction, chlorinated organic compound, silane, IR spectrum, nuclear magnetic resonance, spectrum analysis, reaction mechanism

ABSTRACT: The reaction of esters of trialkylstannylacetic acid with chlorosilanes [SiCl_4 , CH_3SiCl_3 , $(\text{CH}_3)_2\text{SiCl}_2$] was studied. The investigated chlorosilanes were found to react readily with the methyl esters of trialkylstannylacetic acids, yielding either the O- or the C-isomers in high yields, depending upon the time and temperature of the experiment (the O-isomer rearranges to the C-silylated product upon heating). Replacement of the chlorine atoms by alkyl groups in the O-derivatives gradually lowers their ability to isomerize. The proton magnetic resonance and infrared spectra of the compounds are discussed. Orig. art. has: 2 figures and 1 table. /JP:IS/

SUB CODE: 07 / SUBM DATE: 30Jan65 / ORIG REF: 008 / OTH REF: 001
Card 1/1 UDC: 547.245

ACC NR: AP7005107

SOURCE CODE: UR/0079/66/036/009/1679/1684

AVDEYEVA, V. I., BURLACHENKO, G. S., BAUKOV, Yu. I., LUTSENKO, I. F., Moscow
State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

"Studies of O- and C-Organometallic Isomers. V. Reaction Between Germane
Halides and Esters of Trialkylstannylacetic Acid and Trialkylalkoxystannanes"
Moscow, Zhurnal Obshchey Khimii, Vol 36, No 9, 66, pp 1679-1684

Abstract: In a continuation of a previous investigation, the possibility of using readily available esters of trialkylstannylacetic acid in the reaction with germanium halides was established. This is a convenient method for the synthesis of alkoxygermanes, because it provides a rapid and easy way of substituting the halide atoms attached to the germanium atom with the corresponding alkoxy groups. The yields of alkoxygermanes are 70-95%. The physical constants and IR spectra of the methyl ester of trimethoxygermanylacetic acid synthesized by this method were found to be in agreement with those of the same ester when synthesized by reacting the methyl ester of tributylstannylacetic acid with trimethoxychlorogerlane. Orig. art. has: 1 figure, 6 formulas and 1 table. [JPRS: 38,970]

TOPIC TAGS: organotin compound, organogermanium compound, IR spectrum

SUB CODE: 07 / SUBM DATE: 21Jun65 / ORIG REF: 096 / OTH REF: 006

Card 1/1

UDC: 547.469:546.289.811:541.62

1002 1/56

BAUKOVA, A.P.

Transfusion shock during transfusion of Rh-negative blood. Akush.
1 gin. 36 no. 2:79-82 Mr-Ap '60, (MIRA 13:12)
(BLOOD--TRANSFUSION) (SHOCK)

S/188/62/000/006/012/016
B125/B104

AUTHORS: Rezayev, N. I., Baula, G. G.

TITLE: An investigation of the width of the Raman lines of solutions

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 6, 1962, 63 - 65

TEXT: The width of the lines of Raman scattering in the binary equimolar solutions benzene - CCl_4 , benzene - chloroform, chloroform - acetone, and acetone - CCl_4 was measured with a diffraction spectroscope after a method worked out by N. I. Rezayev and N. S. Andreyev (Optika i spektroskopiya, 7, 119, 1959). The widths of most of the polarized and of the depolarized lines of the compounds remain unchanged in the solutions. Only the benzene lines with 607 cm^{-1} in the mixture benzene - CCl_4 and with 1178 cm^{-1} in the mixture benzene - chloroform increase or decrease (according to the dominant mode of vibration). The remarkable broadening of the lines 3020 cm^{-1} of the valency vibrations of the CH group of chloroform in Card 1/2

An investigation of the ...

S/188/62/000/006/012/016
B125/B104

mixtures with acetone confirms the existence of a hydrogen bond between the C=O group of acetone and the CH group of chloroform. This bond leads to a considerable broadening of the line of the chloroform CH group valency vibration, but it has no effect upon the line width of the valency vibration of the C=O group in acetone. The hydrogen bond of the type CH...O+C in the chloroform - acetone system is not definitely proven. There is 1 table.

ASSOCIATION: Kafedra-optiki (Department of Optics)

SUBMITTED: April 4, 1962

Card 2/2

L 00824-67 EWT(m)/EWP(j)/T/EWP(t)/ETI IJP(c) JD/WW/JW/GD/RM
 ACC NR: AT6022645 SOURCE CODE: UR/0000/66/000/000/0041/0061
 AUTHOR: Plastinin, Yu. A.; Baula, G. G. 41
 ORG: none 871
 TITLE: Absorption cross sections of electronic band systems of the diatomic molecules N₂, O₂, N₂⁺, NO, C₂, and CN at high temperatures 18
 SOURCE: AN SSSR, Energeticheskiy institut. Issledovaniya po fizicheskoy gazodinamike (Studies of physical gas dynamics). Moscow, Izd-vo Nauka, 1966, 41-61.
 TOPIC TAGS: electron spectrum, diatomic gas, diatomic molecule, oxygen, nitrogen, carbon, cyanogen
 ABSTRACT: In view of the need for absorption cross sections of electronic band systems of the diatomic molecules N₂, O₂, N₂⁺, NO, C₂, and CN in calculations of the radiation energy of hot gases, these cross sections were calculated over a wide temperature range, T = 2000-20,000°K. Since at such temperatures the electronic band systems consist of a very large number of rotational lines, in order to simplify the calculations it was assumed that the rotational lines overlap completely and form a continuum, and the summation over a discrete series of lines was replaced by integration with respect to the electronic-vibrational bands. Matrix elements of the following electronic band systems are considered: system O₂ (III-P)(C₃¹Σ⁻-X₁¹Σ⁺); β-system NO(B²Π-X²Π); γ system NO(A²Σ⁺⁻-X²Π); first negative system N₂⁺(1-)(B₂²Π-X₂²Σ⁺);
 Card 1/2

L 00824-67

ACC NR: AT6022645

violet system $CN(\phi)(B^2\Sigma^+-X^2\Sigma^+)$; red system $CN(K)(A^2\Pi-X^2\Sigma^+)$; second positive system $N_2(2+)(C^3\Pi_u-B^3\Pi_g)$; first positive system $N_2(1+)(B^3\Pi_g-A^3\Sigma_u^+)$; Swann system C_2 (Sw) $(d^3\Pi_g-a^3\Pi_u)$; the Lyman-Birge-Hopfield system $N_2(L)(a^1\Pi_g-X^2\Sigma_g^+)$, and Meinel system $N_2^+(M)(A^2\Pi_u-X^2\Sigma_g^+)$. Orig. art. has: 17 figures, 3 tables, and 13 formulas.

SUB CODE: 07/ SUBM DATE: None/ ORIG REF: 014/ OTH REF: 034

Card 2/2 fv

Bauer, J.

CZECHOSLOVAKIA/Solid State Physics - Structural Crystallography

E-4

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 13107

Author : Hanic F., Bauer J.

Inst : Not Given

Title : Crystallographic Data for Artabsine

Orig Pub : Chem. zvensti, 1957, 11, No 7, 418-424

Abstract : X-ray diffraction methods were used to determine (Cu-K λ) the lattice parameters of artabsine C₁₅H₂₀O₃, namely a=9.22, b=15.94, c=8.86 Å, Z = 4, (measured) 1.25, n_p(|| c) = 1.4996; n_m(|| a) = 1.6126; n_g (|| b) = 1.6277.

Card : 1/1

27

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204010010-3

SPIVAK, N., kand.tekhn.nauk, BAULIN, D., inzh.

Lightweight panel ceilings for apartment houses.
Zhil. stroi no.3:22-25 Mr.'60. [REDACTED] (MIRA 13:6)
(Ceilings)

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000204010010-3"

KUZNETSOV, G.F., doktor tekhn. nauk, prof.; SIVAK, N.Ya., kand. tekhn. nauk. Prinimali uchastiye: BAULIN, D.K., inzh.; KREYTAN, V.G., inzh.; BUADZE, V.Sh., inzh.; KONTRIDZE, M.D., inzh.; USOV, A.L., inzh.; BADZHAGYAN, V.S.; KLIMOVA, G.D., red. izd-va; ABRAMOVA, V.M., tekhn. red.

[Instructions for designing and manufacturing large lightweight slabs to go between stories of apartment houses and public buildings] Ukazania po proektirovaniyu i izgotovleniyu oblegchennykh krupnopanel'nykh mezhduetazhnykh perekrytii zhilykh i obshchestvennykh zdanii. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit.materialam, 1961. 109 p. (MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut stroitel'noy i ogranzhdayushchikh konstruktsiy. 2. Deystvritel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Kuznetsov).
(Precast concrete construction)

NIKOL'SKIY, V.N., kand. tekhn. nauk; SPIVAK, N.Ya., kand. tekhn. nauk; BAULIN, D.K., inzh.; BUADZE, V.Sh., inzh.; KREYTAN, V.G., kand. tekhn. nauk; PERMYAKOV, S.I., kand. tekhn. nauk; USOV, A.L., inzh.; KOSHKIN, V.G., kand. tekhn. nauk; MARAVIN, B.L., inzh.; ERENBURG, A.I., inzh.; KOCHESHKOV, V.G., inzh.; RUBANENKO, B.R., glav. red.; ROZANOV, N.F., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; FINKINSHTEYN, B.A., inzh. red.;

[Prefabricated floor and ceiling structures] Poly i perekrytiia industrial'noi konstruktsii. Moskva, Gosstroizdat, (MIRA 16:12). 1963. 71 p.

1. Akademiya stroitel'stva i arkhitektury SSSR. Tsentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy. 2. Nauchno-issledovatel'skiy institut stroitel'noy fiziki i ogranichayushchikh konstruktsii (for Nikol'skiy, Usov). 3. Tsentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy (for Buadze, Baulin, Spivak, Kreytan, Kocheshkov). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR (for Erenburg).

(Floors) (Ceilings)

BAULIN, I. S.

Lubrikatsiia rel'sov nazheleznodorozhnykh krivykh. [Lubrication of rail in rail-road curves]. Moskva, Gos. transp. zhel-dor. izd-vo, 1945. 34 p. illus.

DIC: TF264. B3

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

BAULIN, I.S., inzh.; D'YAKONOV, V.N., kand.tekhn.nauk.; USKOVA, O.N., kand.
tekhn.nauk.; SHUR, Ye.A., inzh.; KONYUKHOV, A.D., inzh.; APANAS'YEV,
L.U., inzh.; EVLIKANOV, A.V., inzh.

Investigating the mechanism of rail contact-fatigue damages
(defects 82 and 64). Vest.TSNIL-MPS 21 no.4:27-30 '62. (MIRA 15:6)
(Railroads--Rails--Defects)

BAULIN, I.S., inzh.; D'YAKONOV, V.N., kand.tekhn.nauk

Improving the quality of standard make rails manufactured from
Martin steel. Trudy TSNII MPS no.292:166-183 '65.

(MIRA 18:10)

KONYUKHOV, I.S., inzh.; BAULIN, I.S., inzh.

Residual stresses in rail heads with contact-fatigue damage.
Vest. TSNII MPS 23 no.7:43-46 '64. (MIRA 18:3)

BAULIN, I.S., inzh.; NIKIFOROVA, Ye.F., inzh.

Microspectral analysis of the area of the formation of contact
fatigue defects in rail steel. Vest. TSNII MPS 24 no.4:58-59
'65. (MIRA 18:7)

R A M L I N , I . U .

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION 30V/2215

Vsesoyuzny nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendelejeva

Rezervnaya nauchno-issledovatel'skaya Rabochaya kniga No.2 (Scientific Research Abstracts Collection of Articles, Mr. 2) Moscow, Standards, 1958. 139 p., 2,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, ser. 1 Smernitelnaya priborov.

Ed.: S. V. Rehetina; Tech. Ed.: N. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and scales for the various industries.

CONTENTS: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, ser. 1 (mernitelnaya priborov pri Sretse Ministerstva SSSR (Commission on Standards, Resources, and Measuring Instruments under the USSR Council of Ministers)), the participating institutes are: VNIIM - Vsesoyuzny nauchno-issledovatel'skiy metrologicheskiy in-t imeni D.I. Mendelejeva (All-Union Scientific Research Institute of Metrology) Izmail D.I. Remezov (in Leningrad); Sverdlovsk branch of this institute; VNIILK - Vsesoyuzny nauchno-issledovatel'skiy zavod po standartam i standartizatsii, ser. 1 (Institute of All-Union Scientific Research Institute of the Commission on Standards, Measures, and Measuring Instruments, created from MOIPI); Moscow State Institute of Measures and Measuring Instruments (October 1, 1955); VNIIMU - Vsesoyuzny nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh izmerenii (All-Union Scientific Research Institute of Physico-technical and Radio-engineering Measurements) in Moscow; KhGIUP - Kharkovskiy gosudarstvennyi in-t imeni V.A. Il'inskogo (Kharkov State Institute of Measures and Measuring Instruments); and MOIPI - Moscow Metrology Gosudarstvennyi in-t imeni G.S. Gorobiova (Moscow State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

Frequency Service 50

Astronavteve, Ye.V. (VNIIFTRI) TSCh-1 and TSCh-2 Type Instruments for Integral Comparison of Electric Oscillation Frequencies 51

Verbitskii, A.P. and V.K. Budin [Deceased] (VNIIM). Automatic Device for Controlling the Frequency Computer Unit of Generators 52

Falk, O.M. (VNIIFTRI). Standard Frequency Meter (for checking purposes) for Frequency Transmission Through a High-power Short-wave Transmitter 53

Bryzger, L.D., A.Ye. Logvin, I.J. Butlin, and Ye.I. Orlov (KhGIUP). Determining the Frequency Vectors of 3-5 Ammonia Absorption Lines 54

Sachness and Strength Requirements (Dolzhnosti, Ya.Z., candidate

of Technical Sciences)

Savitskii, P.G., and I.A. Zakharov (Sverdlovsk Branch of VNIIM).

Ca 1 12/77

3.1200

78023

SOV/33-37-1-23/31

AUTHORS: Sopel'nikov, M. D., Baulin, I. V.

TITLE: A Spark Chronoscope for the Oscillographic Reception of Time Signals

PERIODICAL: Astronomicheskiy zhurnal, 1960, Vol 37, Nr 1, pp 151-155 (USSR)

ABSTRACT: The use of Cesium and Ammoniac time standards requires increased accuracy in receiving time signals, say with an error of not more than 0.1 msec. The chief difficulty is industrial and atmospheric noises. Thus, even when neon or spark chronoscopes are used for registering radio signals the errors amount to from 1-2 msec. The newly introduced oscillographic method makes it possible to estimate visually the shape of the signals received and choose the most trustworthy. This method is used widely in the Irkutsk Branch of the All-Union Scientific-Research Institute of Physical and Radiotechnical Measurements (VNIIFTRI) and in the Khar'kov Institute of Measures and

Card 1/3

A Spark Chronoscope for the Oscillographic Reception of Time Signals

78023
SOV/33-37-1-23/31

Measuring Instruments (KhGIMIP). The essence of the method is that signals from a receiver and marks from an auxiliary device are sent simultaneously into an oscilloscope. The standard marks are supplied by a synchronous motor which operates at a frequency of 1,000 Hertz and makes 10 rps. It carries a disk with four radial slits which transmit light impulses to a photocell connected with an electronic circuit and an oscilloscope. This device at the Khar'kov Institute has reduced the accidental error of time signals from long-wave stations to not more than 0.5 msec, and the signals received from short-wave stations were registered with errors of the order of 0.1 msec. The authors thank foreman E. M. Klopotovskiy, who helped construct the chronoscope, and assistants of the Irkutsk Laboratory, L. N. Nadeev and N. A. Tel'pukhovskiy, for similar help. There are 6 figures; and 2 references, both Soviet.

Card 2/3

A Spark Chronoscope for the Oscillographic
Reception of Time Signals

78023
SOV/33-37-1-23/31

ASSOCIATION: Khar'kov State Institute of Measures and Measuring
Instruments (Khar'kovskiy gosudarstvennyy institut mer i
izmeritel'nykh priborov)

SUBMITTED: June 22, 1959

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B A U L I N - A P J
U S S R .

11966* Contact Stresses and Fatigue Fractures of Babbitt Bearings for Automobiles and Tractors. Kontaktnye naprashenniya i nadezhnost' ravnoshellis avtomobilnykh i traktornykh habbitovykh podshipnikov. (Russian) M. I. Baulin. Avtomobile i traktorno promstsvnoe, 1955, No. 5, p. 17-19. Babbitt linings are tested for fatigue by repeated bending and compression accompanied by the force of friction on the surface of the material. Patterns of crumbling and cracks are established. Photographs, diagrams.

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